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4/27/05*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/015,086  
Applicant : Jonathan J. Bernstein  
Filed : December 11, 2001  
TC/Art Unit : 1765  
Examiner : Anita Karen Alanko

Confirmation No. 9491

Docket No. : 112222.128 US1  
Title : METAL ALLOY ELEMENTS IN MICROMACHINED DEVICES  
Customer No. : 23483

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HGT  
5/9/05*

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATION UNDER 37 CFR § 1.8(a)

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

4/25/2005  
Date of Signature & Mailing

Jaime Choi  
JAIME CHOI

**REPLY TO FINAL OFFICE ACTION**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This communication is in response to the Office Action mailed December 2, 2004.

Please amend the above-identified application as follows.

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this response.

Remarks can be found beginning on page 9 of this response.

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Appl. No. : 10/015,086  
Amendment Dated : April 25, 2005  
Reply to Office Action of : December 2, 2004

Atty. Docket No. 112222.128 US1

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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of the claims:**

1. (currently amended) A microelectromechanical device, comprising:

at least one freestanding flexible member formed from an alloy comprising:

one or more noble metals selected from the group consisting of ~~gold~~, platinum and palladium; and

one or more alloying elements, the elements selected from iridium, ruthenium, rhodium, tungsten, osmium and nickel, wherein the one or more alloying elements form a solid solution with the one or more noble metals having an equilibrium solid solubility of at least 1 wt.% in the noble metal, and wherein the one or more alloying elements are present in an amount sufficient to provide at least one performance characteristic of the flexible member that is at least 50% greater than the noble metal alone, said performance characteristic selected from the group consisting of yield strength, tensile strength and hardness.

2. (canceled)

3. (currently amended) A micromechanical device, comprising:

at least one freestanding flexible member formed from an alloy, where the alloy comprises:

one or more noble metals selected from the group consisting of ~~gold~~, platinum and palladium; and